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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/720,494	05/02/2002	Yevgeny Semenovitch Vozhdaev	87528.000002	3395

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EXAMINER

PATEL, HARSHAD R

ART UNIT PAPER NUMBER

2855

DATE MAILED: 10/16/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/720,494

Applicant(s)

VOZHDAEV ET AL.

Examiner

Harshad Patel

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-11 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) g.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

Specification

1. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

2. The abstract of the disclosure is objected to because the abstract uses legal phraseology such as "said". Correction is required. See MPEP § 608.01(b).
3. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1, it is unclear as to the structural relationship of the plate with the strut or the body. It is unclear as to what is meant by "them" at line 3. It is unclear as to the strut for fastening paths between them and to the electric heating elements. Where are the heating elements located?

Claim 10, "the inlet orifices" at line 2 lacks antecedent basis. It is unclear as to how the orifices for determining the angle of attack are arranged above the axially symmetrical body.

Claim 11, it is unclear as to the strut having an exit section with at least one additional orifice for tapping the static pressure.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1, 3 and 5-7 are rejected under 35 U.S.C. 102(b) as being anticipated by Hagen et al. (5,466,067) (hereinafter Hagen '067).

Hagen teaches a pitot static tube including three groups of orifices for determining the total pressure (29), static pressure (31) and angle of attack (41, 43), and axially symmetrical body (30), and a strut (16A), heating element (20), wherein the orifices for measuring the static pressure are arranged on a plate, body formed of a plate, upstream of the strut. The axially symmetric body terminates and mated smoothly with the strut. The strut is formed of a supersonic or subsonic aerodynamic profile (col. 1, lines 30-50).

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 2, 4 and 8-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hagen in view of Hagen et al. (5,731,507) (hereinafter Hagen '507).

Hagen '067 teaches all the features as claimed except for orifices for determining angle of attack arranged on the strut at specific location or positioning of the heating element. Hagen '507

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teaches the orifices for determining the angle of attack positioned offset of the nose of the strut. It would be obvious to a skilled individual in the art to position the orifices on the strut portion towards the nose portion since it would provide direct and easy measurement for the angle of attack.

As to the plate with the orifices for measuring static pressure constructed separately from the axially symmetric body, it would be a matter of an obvious modification since moving the static pressure measuring ports from the axially symmetric body simply reduces the size of the body and thus reduce the aerodynamic drag. Hagen '067 has a reduced body for the same purpose. The measuring of the static pressure may be made from anywhere in the vicinity and still get the desired results. Providing the orifices on a separate plate on the base member or anywhere on the body would perform equally. Moreover the axial body of Hagen '067 in Fig. 7 shows a reduced length for the reducing the aerodynamic drag.

10. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hagen '067 in view of Zeeben et al. (4,833,911) (hereinafter Zeeben).

Hagen '067 teaches all the features of the instant invention except for the separate plate structure for providing the orifices for the measuring the static pressure. Zeeben teaches a separate plate member (16) from the strut member on which the orifices (10) for measuring static pressure are provided. It would have been obvious to a person having ordinary skill in the art at the time the invention was made to provide orifices on a separate plate since the static pressure measured in this way provides better results and the size and weight of the probe can be reduced thus reducing drag.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Hagen (5,616,861) teaches static pressure ports flush mounted on the body of the airplane separate from the probe.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Harshad Patel whose telephone number is (703) 305-4935. The examiner can normally be reached on Monday-Thursday (7:00 AM-5:30 PM).



Harshad Patel
Primary Examiner
Art Unit 2855

hp
October 6, 2003